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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,595	12/21/2004	Norbert Steiner	260501US0PCT	5067
22850	7590	05/18/2007		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
			EXAMINER PEZZUTO, HELEN LEE	
			ART UNIT 1713	PAPER NUMBER
			NOTIFICATION DATE 05/18/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
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## Office Action Summary

**Application No.**

10/518,595

**Applicant(s)**

STEINER ET AL.

**Examiner**

Helen L. Pezzuto

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 11-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-14 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/21/04, 1/1707.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

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**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election with traverse of Group I, claims 1-10, and 14 in the reply filed on 3/6/07 is acknowledged. The traversal is on the ground(s) that the examiner has not met the burden of explaining a lack of unity of invention. This is not found persuasive because as the examiner has explained that the polyelectrolyte does not make a contribution over the prior art US 3,929,739 because the reference teaches terpolymer that meets at least the requirement of claim 1, as the third comonomer can be methylacrylate, ethylacrylate and methyl methacrylate, within the scope of (meth)acrylic acid derivatives. In the reply filed on 3/6/07, applicant has not specifically traversed the explanation provided by the examiner.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 11-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 3/6/07.

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***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear as to whether applicant intend an embodiment that contains another 0.1 to 20 wt% of another polyelectrolyte component or that applicant intend an embodiment which contains 0.1 to 20 wt% of the polymer based on the total composition of the polyelectrolyte. Please clarify.

In claim 5, do applicant intend "wherein the (meth)acrylic acid derivatives" is 2-dimethylammoniummethyl(meth)acrylate.."?.

***Claim Rejections - 35 USC § 102/103***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this

Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-10, and 14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sato et al. (US-362) or Takeda (US-415).

US 5,776,362 to Sato et al. discloses a copolymer containing one or more cationic monomers, a vinyl carboxylic acid monomer and a nonionic monomer. Suitable cationic monomers are defined by general formula (1), including (meth)acryloyloxytrimethyl ammonium salt and (meth)acrylamidepropyldimethylammonium salts, which fall within the scope of the instant claims 4-5 (col. 1, line 49 to col. 2, line 51; col. 5, Example 4). The preferred nonionic comonomer is (meth)acrylamide (col. 2, lines 57-61). Prior art teaches various conventional polymerization methods to produce the copolymer, inclusive of those

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recited. The examiner is of the position that the recited toxicity index and solution viscosity are inherent properties in prior art polymer product as identical monomers are utilized to produce the resultant polymer product as presently claimed. In any event, it would have been obvious to one having ordinary skill in the art to determine the optimum solution viscosity based on the intended application.

Similarly, US 5,587,415 to Takeda discloses a water soluble cationic copolymer derived from dispersion polymerized product of a mixture of cationic monomer defined by formula (1) and/or (2). Suitable cationic monomers include quaternized salts of dimethylaminoethyl (meth)acrylate and dimethylaminopropyl(meth)acrylamide (col. 3, lines 4-67). Other preferred comonomers include (meth)acrylamide, meeting the monomeric components of the present claims (col. 4, lines 1-8; working examples 1-3). Prior art discloses dispersion polymerization, but is silent in the other polymerization methods expressed in claims 8-10. The examiner is of the position that the patentability of the claimed polyelectrolyte is determined based on the product itself, not the method of making it, because prior art teaches a product which reasonably

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appears to be identical to that of presently claimed.

Similarly, the recited toxicity index is inherent in prior art product as stated in the precedent paragraph.

***Claim Rejections - 35 USC § 103***

8. Claims 1-10, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-10-309405 (a copy of machine-translated document is hereby provided).

JP-10-309405 discloses a dewatering composition comprising a polymeric flocculant, comprising at least one cationic monomer defined by formula (1), a nonionic monomer such as (meth)acrylamide ([0014]), an anionic monomer such as (meth)acrylic acid, and other components. Suitable cationic monomer mixture includes those expressed in claims 4-5 ([0011]; working examples). Prior art exemplifies emulsion polymerization in the production of the polymer product. Accordingly, it would have been obvious to one having ordinary skill in the art to select a mixture of quaternized cationic monomers as suggested, motivated by the reasonable of expectation of success as taught. As stated previously, the recited toxicity index is considered inherent in prior art product as near identical components are utilized in the production of the polymer product. In any event, one having ordinary skill in the art would have

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readily envisages the acceptable toxicity index and solution viscosity because the same application (i.e. water treatment processes) is contemplated by applicants and patentees. The discovery of optimum known result oriented variables to solve a known problem in a known process would be obvious and involves only routine skill in the art.

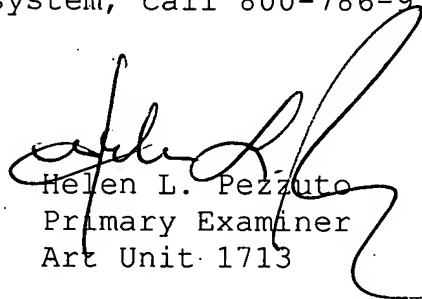
Thus, rendering obvious the present claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Helen L. Pezzuto  
Primary Examiner  
Art Unit 1713

hlp